

PUBLICATION NUMBER : 59017127
PUBLICATION DATE : 28-01-84

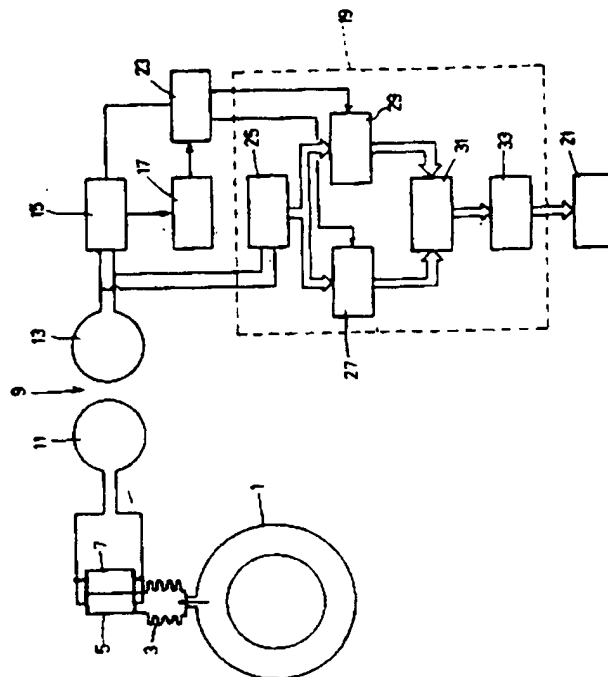
APPLICATION DATE : 21-07-82
APPLICATION NUMBER : 57125746

APPLICANT : NISSAN MOTOR CO LTD;

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INT.CL. : G01L 17/00 // B60C 23/04

TITLE : DISPLAY DEVICE FOR AIR PRESSURE
IN TIRE



ABSTRACT : PURPOSE: To convert the change in the resonance frequency of a surface acoustic wave element to a change in air pressure with an arithmetic circuit and to display said change by detecting the change in the air pressure in a tire as a change in said resonance frequency.

CONSTITUTION: The signal from a sweep oscillation means 15 is transmitted by a signal from a controller 23 via a transmission means 9 to the 1st and the 2nd surface acoustic wave elements 5, 7. When the elements 5, 7 resonate, energy consumption is induced by a resonance system constituted of said elements and a reception antenna 11, by which the signal level at the antenna 13 is decreased. The resonance point of the decrease in the level is detected with a detection means 17 and is fed to a controller 23. A counter 25 counts the frequency of the means 15 and inputs the same to memories 27, 29. The outputs of the memories are inputted to a subtractor and are fed to a pressure converter 33, by which the outputs are converted to the pressure value signal corresponding to the input frequency. As a result, a display means 21 receives the pressure value signal as the calculated result from an arithmetic means 19 and displays the prescribed air pressure.

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